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Vol. 3 AUGUST, 1921 No. 2

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Photo by courtesy of E. Schaaf-Regelman.

Burro Rapid Transit. Getting the Truck of a narrow Gauge Railway into an Arizona Asbestos Mine.

Asbestos Nomenclature

By G. S. Stuart

"What's in a name?" says Shakespeare. "Much," replies the sturdy mineral Asbestos.

In origin, the word *asbestos* is derived from the Greek *aobeotos*, which signified to the Grecians, unquenchable, inextinguishable, or inconsumable.

The reason for applying the word *asbestos* to the mineral at all, was because of a fabulous story of old, of a certain stone which, when once set on fire could not be quenched. A Grecian scientist was largely responsible for this episode. The ancients once applied the word *absistos* to the mineral from the fact that it was "stone once heated, kept hot several whole days."

In a famous French work asbestos is styled as *mineral filamenteaux* because of its incombustibility and because of its being immune from the action of prolonged heat.

The Germans called it *steinflachs*, meaning stone flax.

The Italians referred to it as *amiantho* from the original Greek *amiantos*, which signified to them pure, incorruptible and undefiled. This accounts for its use as funeral robes by the Grecians and Romans for the dead bodies of their kings and honored dead, they desiring to keep the ashes of their royal dead from becoming defiled by the ashes of material things.

The Canadian French speak of it as *pierre a cotton*, which means cotton stone, in allusion to its similarity in appearance to cotton.

Irrespective of national custom, the fact remains that practice has given rise to gross inaccuracy in applying scientific names to wide varieties of kinds of Asbestos Crudes and Fibres.

The original asbestos was first found in the Italian Alps and Ural Mountains, and was called by the Romans *amianthus*, from the Latin. It is a variety of chrysotile, white, silky and fluffy, remarkable for its tensile strength and a glossy, soapy feel. Strictly speaking, this superior grade of the mineral should be characterized today as *amianthus*. One distinguishing characteristic is its pearly white color. This is the technically pure asbestos of such

varieties as come from Italy, having long silky fibres, as distinguished from the brown and blue harsh fibres of South Africa.

On the other hand, strict precision of speech requires that *asbestos* be used to characterize the grey or greenish grey fibrous variety of Amphibole usually containing no alumina, such as tremolite or actinolite and not within the category of fibrous serpentine or chrysotile properly known as *amianthus.* The modern Greeks used the word *aebestos.* In other words, *asbestos* is one of the classified groups of amianthus; in the genealogical tree, *amianthus* is the genus of which *asbestos* is a species.

It is therefore most likely true that the original name applying to the mineral now known as asbestos was *amianthus,* this name as applied to the very soft, minutely fine and most silky variety of asbestos fibre. The exceptionally fine fibres and the pure, pearl white color are the essential characteristics of amianthus. Technically, except for custom, the word *amianthus* should be applied to this type of fibre today. Apparently this explains why Canadian asbestos is called *chrysotile asbestos* to distinguish it from the amphibole asbestos which we commonly and accurately designate as *asbestos.*

Asbestos, therefore, is a class or sub-division of amianthus. The generic name is *amianthus,* having almost the same chemical properties as asbestos.

Probably the reason for the universal use of the word *asbestos* to designate all varieties, is because of its repetition in olden times, before the several classfications of the mineral fibre; that is, they spoke of *asbestos amphibole, asbestos serpentine, asbestos antophyllite, asbestos tremolite* and *asbestos actinolite.* It is believed that custom simply eliminated the kind and left remaining the name *asbestos.*

Consequently, from the technical standpoint, the finer fibrous chrysotile, obtained from Canada, cannot be referred to as *asbestos; amianthus* is the proper term. However, custom and common use have established the word *asbestos* more or less as the correct name for the Canadian Chrysotile. The distinction between the so-called amphibole asbestos and the so-called chrysotile asbestos is purely a chemical one, in that the former is a calcium magnesium

silicate often containing ferrous oxide, while the latter is purely a hydrated magnesium silicate.

An allegorical drawing, representing "Asbestos" standing between Civilization and the Destructive Elements. This is the house mark of Turner Bros. Asbestos Co., Ltd., of Rochdale, England, and is reprinted with the permission of that Company.

The Italian amphibole was a harsh, brittle fibre of whitish grey color, whose exceptional length ranged as long as five or six feet. The chrysotile is not so long and has different chemical properties, while the serpentine runs in narrow veins about two or three inches wide, giving fibres of that length, having great tensile strength; consequently, the conclusion may usually be reached that the short, brittle American fibres, having small quantities of water

of crystallization, belong to the amphibole variety, just as do the harsher fibres of South Africa.

It is interesting to notice the history of the names applied to asbestos fibre. Originally it is *amiantus*, then, probably for euphonious reasons, or due to the Italian influence, it was made *amianthus*, and then *amant*. So, likewise, asbestos appears in the writings of Pliny and Carlyle as *asbest* and *asbeste*. Pliny refers to it as a rare and costly cloth, the funeral dress of kings. Marco Polo, in the 13th century, while traveling in Siberia, was shown cloth made from fibrous material called *amianthus*, which withstood action of fire.

Plutarch refers to his perpetual lampwick made from *Carpasian linen*, during the Middle Ages.

During the history of the mineral diverse names were applied. Among these were *asbeston*, *abeston*, *abiston*, *albeston* and *albestone*. The last two were probably inspired by the word *albus*, meaning white, and stone; consequently named for *white stone*. The application of *asbeste* is a modification of the French, and gave rise to the terms *abest* and then *abbest*, *asbest*, these usually appearing only in poetry.

Many names were given to asbestos in olden times. One of these names was *earth flax;* another *polyanthus;* another was *salamander's hair* and still others were *mountain flax*, *uralite*, *salamandrite* and *asbestolith*. These old appellations account for many of the trade names in the modern asbestos business today.

Salamander's hair and salamandrite were so-called from the salamander, a small animal which inhabited the low marsh lands and was supposed to be immune from fire. This little animal secreted a slimy substance which made it impervious to heat or fire, even when cast into burning flames.

Salamander popularly supposed by ancients to be immune from fire.

Of serpentine asbestos, which belongs to the hornblende family of minerals, many interesting stories are told to account for the name. The purest grade of serpentine

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the ancients styled "noble serpentine." One school relates that serpentine, which means *doubtful*, was applied in allusion to the difficulty in distinguishing it from pyroxene. Another school tells us that serpentine was so named because of its motleyed green color, resembling a serpent and still another accounts for the name by the reputed virtue of the stone in curing snake bites. Serpentine asbestos rock, by virtue of its lack of crystallization and its slightly translucent color, was frequently cut and polished like marble, for decorative purposes, by ancient sculptors.

Asbestos is believed to have originated from the action of water on quick lime. That the functions of the mineral now so indispensable to the arts, were well known to the early writers, is well attested to by their works. Griswell, speaking of the religious holy lamp, said "Unspent to burn, with sacred *asbest* fed" and from Southey, in one of his best works, we quote "Fly, Salamanders, on *asbestos* wings, to Delia's fiery glance."

Likewise, Thomas Carlyle, as late as his day, suggests: —"Woe to him whose edifice is not built with true *asbest*."

Asbestos was first intelligently discovered in the Alps Mountains, in 1720. To be sure asbestos was known prior to this, but the natives who handled it did not know what it was. Not until 1860 was the first factory established in Europe for the manufacture of asbestos products. The first mining operation in Quebec was begun in 1877 and 1878.

Until 1898 Asbestos rock was dressed and prepared by hand work, the first mill for this purpose being erected in Canada in 1889.

Few industries can boast of having such an ancient and honorable history, yet even today, after asbestos has served the arts and industries all these years, comparatively little is known by the rank and file of the general public of this important mineral.

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The Discovery and Early Uses of Asbestos

By M. C. Weaks

Much has been written about the mining, manufacture, and uses of asbestos in modern times, but the history of the mineral during the ancient and mediaeval periods has not been so well covered. It is the purpose of this article to bring together some of the fragmentary references to asbestos and to enumerate some of its uses prior to 1800.

Asbestos has been known and used to some extent for probably 2,000 years. Its discovery is attributed to the Romans who obtained it from the Italian Alps and the Urals. They used it in making shrouds in which to enwrap the bodies of their dead during cremation, so that the ashes might be kept separate from the wood ashes of the pyre. A specimen of this ancient cremation cloth has been preserved in the Library of the Vatican. It was found, perfectly intact, with some ashes, in a Roman sarcophagus in the Via Praenestina in 1702, and was deposited in the Library by the order of Clement the Eleventh. A visitor to the Library in 1756 or 1757 writes as follows: "The under librarian, in order to show that it was incombustible, lighted a candle, and let some drops of wax fall on the cloth, which he set on fire with the candle in my presence, without any detriment to the cloth. Its texture was coarse but much softer than I could expect." Herodotus mentions the use of asbestos for cremation cloths as does also Pliny who refers to it as a rare and costly cloth—"the funeral dress of kings."

Virgin's Lamp, said to have had an Asbestos Wick.

The Romans used asbestos for lampwicks also, as is recorded by Plutarch and Strabo, who called the lamps "perpetual" because the wicks seemed never to wear out.

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The lamps of the Vestal Virgins are said to have been furnished with asbestos wicks. Pausanias speaks of a golden lamp, made by Callimachus, an Athenian artist, for Minerva, which "tho it was kept ever burning, as well by day as night, was only once a year supplied with oil, and had a wick made of Carpasian linen, the only linen which is not consumed by fire." This linen, called Carpasian, was made of asbestos mined in Cyprus.

Marco Polo, when traveling thru the Empire of Tartary in the thirteenth century, was shown some cloth which he was told was made from the skin of the salamander, a little animal popularly supposed to be immune from fire, but which proved to be asbestos from a mountain in the Province of Chinchuitalas. One of Marco Polo's companions, a Turk named Curcifar, told him that the mineral yielded threads not unlike wool, which after being dried in the sun, were crushed in a brazen mortar, and afterwards washed. After all earthly substance had been removed, the threads were separated and spun, just as if they were wool, into cloth.

Various stories are told of ruffles made of asbestos by the Chinese and worn at the end of their sleeves. They are supposed to have been finely woven, and when soiled, were easily and thoroly cleansed by fire.

At a meeting of the Royal Society in 1676, a merchant from China exhibited a handkerchief of "salamander's wool," or linum asbesti.

Joachim von Sandrart writes in his "Teutschen Academie" (1679) of an asbestos napkin exhibited in the Imperial Treasury at Vienna as a valuable article. This napkin belonged to Ferdinand III, who paid 18,000 gulden for it. Ferdinand called to his court a Carmelite monk from Sicily who understood the method of weaving asbestos.

Asbestos was found in the Ural district by Sofron Sogra, a farmer, between 1710 and 1720 and mining was begun soon afterwards by Nikita Demidof, one of the founders of a well known family in the district. During the reign of Peter the Great a factory for the manufacture of asbestos was established. A process of manufacture

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known as the Nevjansko process was devised and textiles, socks, gloves, handbags, etc. were made for fifty or sixty years. The enterprise failed on account of the limited demand for the products and lack of transportation facilities. A few samples of these old manufactures, now preserved in museums, are the only traces left of this early industry.

Cronstedt, in his "Essay towards a System of Mineralogy" (London, 1788), mentions Siberian asbestos as "the principal and chief of the fibrous kind." He states that the supply is as limited as its uses. Paper, ribbons, bags, and other trifles were made of it during his time. It is interesting to note Cronstedt's repetition of a report that the French had searched for asbestos some years before. They wished to mix it with tar for use in protecting houses and ships from fire.

Sir Torbern O. Bergman devotes a whole chapter of his "Essays, Physical and Chemical" (Edinburgh, 1791) to asbestos earth, giving the results of his experiments and an analysis of eleven kinds of asbestos. His specimens were obtained from Sweden, Italy, Austria, and Crete. He tells us that "the asbesti have been hitherto applied to little or no use," but expresses no opinion as to future possibilities.

In conclusion, it may be said that prior to 1800, asbestos was found in Italy, Russia, Austria, Sweden, Cyprus, Crete, Euboea, and China. Its principal use in ancient times was in the manufacture of cremation cloth and lampwicks. After the abolition of the funeral pyre, there are few references to asbestos before the establishment of the factory for asbestos products in Russia during the reign of Peter the Great. The first modern attempt to exploit asbestos deposits was made in the Aosta valley of the Italian Alps by a London syndicate about 1860.

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Sidelights on Business Conditions

"General business throughout the United States has been slowly improving. It is very good in some of the Western States. There is an abundance of new business with both the ability and inclination to place it, waiting for further adjustments which will put costs of living, selling prices, wage rates and other general incomes on a relative parity. As usual, many will wait too long.

"Reason for the present wave of depression is that the great purchasing public has formed the opinion that there have not been consummated complete and proper readjustments of prices, and on account of failure to discriminate between different lines or departments of business, the whole economic system has suffered."—*Elbert H. Gary, Chairman of the Board of the U. S. Steel Corporation.*

—

B. C. Forbes, one of the foremost financial writers of the United States, who has just returned from St. Louis, where he addressed that city's Chamber of Commerce, says in the *New York American*: "When one gets away from New York and Chicago, where the talk is mostly of the money market and the stock market, * * * the two factors which loom as of overshadowing importance are: first, the low prices the farmers are obtaining for their products; second, the idleness of 4,000,000 or more workers. Yet there is positive eagerness to see daylight and intense desire to become optimistic. This is one of the encouraging features. 'As a man thinketh, so is he.' The American business world is now more and more thinking prosperity, and more and more working for the return of better times. All that is needful to insure steady improvement is sensible action by bankers, by business men and by labor."

—

"As regards our own country what we need is a leveling of things that shall mean a square deal between man and man in the cost of living. What is required above everything else is maximum production. The whole world needs that. In the United States a crying prerequisite to this end is lower costs; one requisite is a lower cost of labor. High wages keep up prices and keep down production and consumption. The return of prosperity will be blocked un-

til wages are reduced; we must get down off the war stilts as regards everything that society requires, including labor, and bring about an increased supply at lower prices. * * * What is going on in this country in the particular enumerated is descriptive also to a greater or less extent of the situation thruout the world."—*Commercial and Financial Chronicle.*

—

There are no hard times coming;
It's just the soft times going!

Canada's Testimonial to the Prince of Wales

A number of prominent Canadians have recently presented to the Prince of Wales a handsome testimonial, in honor of his visit to Canada during 1920.

The Editor, while in Canada on January 17th was privileged to see this testimonial and was promised a photograph of it for use in ASBESTOS. It was not possible to secure such a photo, however, and he will therefore describe it to the best of his ability.

It is in the form of a book, 12 inches by 18 inches in size, containing a written and photographic record of the travels made by the Prince of Wales thruout Canada. The cover of the book is solid silver, taken from the famous Cobalt Silver Mine. At the top center is the coat of arms of the Prince of Wales, done beautifully in solid gold, taken from the Porcupine District Mines. The coat of arms is studded with diamonds and rubies. In the upper right and left hand corners of the cover appear the Cross of St. George, and in the lower right and left corners the insignia of the Army and Navy Veterans in Canada.

The book with its wonderful cover will be contained in a case made of Asbestos Cloth, the Asbestos for which was produced at Thetford Mines, Province of Quebec. The cloth is of fine texture, slightly sized with rubber cement in order that it will be smooth and pliable. It was made by the Asbestos Textile Company of New York City.

We consider it to have been a wonderful privilege to handle and examine this remarkable document and its interesting case.

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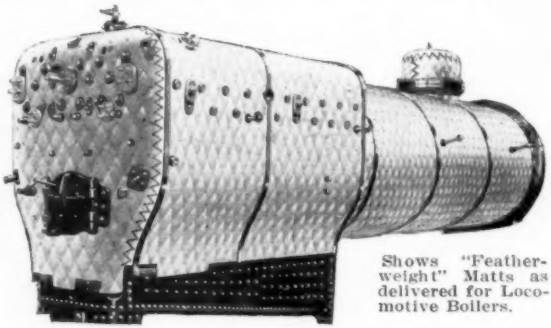

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EDITORIALS

On Labor.

About three years ago the Employers of Pipe Coverers in Philadelphia were paying men 55c per hour. War time demand for men ran the rate up to 65c, 80c, 90c and then to $1.00, notwithstanding that agreements, made in good faith, were broken by the workers, who had the "right of might" with them.

These several advances cost the employers many thousands of dollars because of applied contracts having been taken, based on the agreed upon wage rate.

Union Officials refused to accept any responsibility for these losses and told the Employers, frankly, that it was up to the Employers to protect themselves as best they could.

Conditions changed. Contracts for applied work became scarce. A surplus of men was available.

The Employers asked the men to accept a reduction from $1.00 to 80c, time and half time for all overtime instead of the old double time, and an agreement expiring December 31st of each year.

This proposal was flatly refused, and on June 1st the men went on Strike.

The Employers gave the men fair and timely warning that they intended to man the jobs—Union or no Union.

After a few days of waiting, every Employer set about the business of getting men to work, and training them to apply pipe and boiler covering.

Regardless of violence, threats, advertisements and vicious talk, every job was manned and work went on.

The strike culminated on July 22nd when by an almost unanimous vote, the Union decided to go back to work at the Employers terms, and as individual workmen.

The terms were:

Wages: Mechanics—80c per hour maximum
Helpers —50c per hour maximum
Overtime—Time and half time
Open Shop
No agreement.

The Employers are deeply obligated to the Committee

of 23 of the Building Trades Association for the splendid support given thruout the controversy.

In fact, the rate of 80c set for pipe coverers, was made by the Committee of 23.

It is most unfortunate for all concerned that this strike was called. Many men have been impoverished; several men have been painfully hurt; one man is dead and buried, having been killed during the trouble; much money has been lost and spent by the Employers; and it's mighty hard to determine who benefited.

In the last analysis, the general public profits to the extent that one less trade in Philadelphia is dominated by a small handful of men whose tendencies are toward radicalism.

Praise be, somebody gets a bit of comfort out of it.

Hoover Lauds Trade Associations

Organization, if effective, is the keynote to successful business today. The Secretaries of Trade Associations are organized under the name American Trade Association Executives.

Herbert Hoover, in addressing this formidable organization at its last meeting in Atlantic City, made the statement that the Department of Commerce would rely on Trade Association Secretaries as the entire source of information on business conditions where the whole industry was represented; where the industry is not 100% represented, the Association data would be solicited first for important information and considered as authentic for the part of the industry to which it applies.

Mr. Hoover emphasized that the government now realizes that Trade Associations are the appropriate agencies for the development of "Collective Efficiency" in an industry. In his estimation America is behind other nations in collective efficiency, but not so in the case of individual enterprise.

The Association's activity was enlisted to assist the Department of Commerce next fall to formulate suitable Federal legislation to allow and assure Trade Associations broad constructive latitude in the development of American Industry.

The conference resulted in stamping the best trade as-

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Gaskets, Seamless and Jointed
Packings, Steam and High Pressure
Wick and Rope

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North Wales, Penna.

sociations with the approval of the government. Their place is no longer in question and their efforts will be more and more depended upon in the industrial progress of the nation.

Motor Statistics

The Textile portion of the Asbestos business is so closely allied with the Automobile Industry, that we believe our readers will be interested in the figures published by the National Automobile Chamber of Commerce concerning the motor industry in the United States for the calendar year 1920.

In round numbers there were 8,500,000 automobiles registered during the year, 7,600,000 of these being passenger cars, and the remaining 900,000 motor trucks.

Each day an average of 154,725 cars and trucks enter and leave New York City.

Special taxes paid annually by the industry to the Federal Government amount to $257,000,000, while the regular registration fees paid by car users amount to $81,000,000.

It is estimated that 4% of the country's steel supply is used by the automobile industry.

During 1920 2,241,000 cars and trucks were manufactured, 1,906,000 of these being passenger cars, while 32,400,000 automobile tires were produced.

There are 170 manufacturers of motor trucks in the country and 90 manufacturers of passenger cars, located in 32 states of the Union and employing 300,000 people.

The increase in gasoline production over 1919 was estimated as 19%.

The value of passenger cars exported was $155,000,000, while that of motor trucks amounted to $45,000,000.

No wonder the Automobile Industry has become the principal outlet for the Asbestos Textile trade.

Price Fixing

The recent announcement of the Department of Justice, that it intends to begin prosecution under the anti-trust laws, aimed to break up business associations which are engaged in price fixing, is indeed a worthy enterprise and the whole nation will support any well considered ac-

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tion by the Department of Justice which will end profiteering. It is to be hoped that this policy of the Department will be a sane, reasonable effort and that it will not be a repetition of past performances.

The antics of the Federal Trade Commission, and to some extent those of other Government Departments have been amusing, even while they were to business most serious in consequence.

It is rather generally understood that some trade associations operate with understandings, gentlemen's agreements, and other policies which have the effect of holding prices at or near war levels. These fairly clear-cut schemes to fix and control price should be prosecuted to the fullest extent.

We do hope, however, that proper discrimination, sound judgment, and good business sense will be used by the Department of Justice in determining in advance just how far and in what direction prosecutions shall issue.

Manufacturing Asbestos Goods in Canada.

The Canadian Johns-Manville Company, Ltd., is proceeding satisfactorily with the work of erection and equipment of its large manufacturing plant at Asbestos, Canada.

The Canadian Mining Journal, in a recent issue, finds cause for rejoicing in the fact that the first large and complete plant for the fabrication of Asbestos is to be owned and operated by the largest and best known manufacturer in the world.

Many Canadians find it difficult to understand why it is that, despite her production of 85% of the world's raw Asbestos, Canada has always imported all her finished Asbestos goods. The fact is that the market for sale of Asbestos articles in Canada has only very recently justified the establishment of plants in Canada, and, from what little we know of the world trade conditions in Asbestos, we venture the opinion that no truly large output of finished goods will be produced in Canada for many years to come.

Every trade factor, except the needs of Canada for Asbestos manufactures, is opposed to extensive manufacture of Asbestos goods in Canada.

ASBESTOS TEXTILE CO.

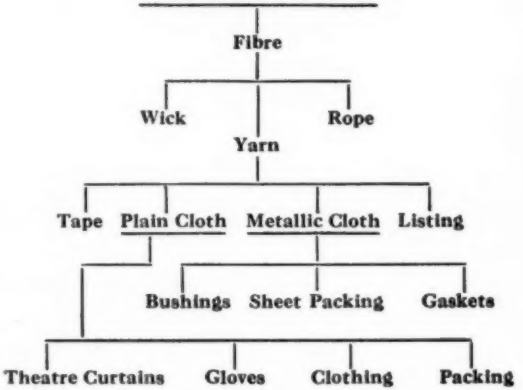
INCORPORATED

MILLS
NORTH BROOKFIELD,
MASS.

GENERAL OFFICES
18 E. 41ST ST.,
NEW YORK.

WE MANUFACTURE

ASBESTOS



Compressed Asbestos Fibre Sheet Packing

"Quality and Service"

ASBESTOS TEXTILE CO.

INCORPORATED

MILLS
NORTH BROOKFIELD,
MASS.

GENERAL OFFICES
18 E. 41ST ST.,
NEW YORK

Coal Age, issue of July 21, devotes several pages to presenting a well illustrated story of the splendid clubhouse and other civic improvements fostered by Madeira Hill Company at Natalie, Penna., the location of the Madeira Hill anthracite properties.

Large employers of labor might profitably read and learn of the great strides toward industrial peace, which have been made by reasonable, sympathetic and sincere interest in the worker by the employer.

In June issue of ASBESTOS we referred to an article and editorial which had appeared in The Canadian Mining Journal, concerning the establishment of manufacturing plants in either Canada or the United States by British capital.

The Canadian Mining Journal in an editorial dated July 22 replies to our expressed views and the reply is so tactful, kind and generous that we hesitate to comment further.

It may well be, that, looking many, many years ahead, the best interests of Canadian Asbestos producers lies in the encouragement of asbestos fabrication in Canada, by themselves or by British manufacturers.

We cannot claim the gift of prophecy, hence our opinion as to what may be best for Canada fifty years from now is of no interest.

Our esteemed contemporary admits that United States demand has put the Asbestos Industry on the map, but, like many another, it refuses, or is unable, to see that wonderfully rich new deposits of Asbestos are being opened up every little while and, in the long run, the Canadian producer will have great need to walk circumspectly, lest his apparent monopoly develops into a lemon.

In any case, we reaffirm our belief that the best interests of the presently living Canadian producers do not lie in the direction pointed out by our good friends, the editors of the Canadian Mining Journal.

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. . . FIBRE . . .

Heat Resisting Cements, Roofing Cements and Paints

Long Fibres

PENNSYLVANIA ASBESTOS CO.

John A. Hovey, President

NORTH WALES, PA.

Paul Hammerich

Inspector of Asbestos, Crude and Fibre. Reports on Asbestos Mines and Mills.

THETFORD MINES - QUEBEC, CANADA

Canadian Crude and Fibres Asbestos	South African and Rhodesian Blue and White Asbestos	Russian Asbestos as soon as Railway Traffic will be Opened

Nederlandsche Asbest Maatschappy

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Contractors and Distributors Page

A salesman recently called on the Chief Engineer of a large power plant to sell High Pressure Covering. The interview was conducted from the salesman's viewpoint, the latter eulogizing in very general terms the merits of his particular type of covering, until it developed that the Engineer's Company was really in the market for a small job of insulation. At this point the Engineer took the initiative in the conversation and asked about the efficiency. The salesman quoted limiting percentages of efficiency varying by ten points. This by no means satisfied the technical engineer who propounded the definite problem—"Our temperature is constantly 300°F., steam pressure 160 pounds, 100° super-heat, what would be the efficiency of your covering in our plant. Just how many B. T. U.'s would be saved every 24 hours and how do you prove your figures?"

The salesman was startled. He was held to definite figures on a specific problem where authoritative proof of his findings was exacted. The salesman set out on his task but failed to convince the Engineer either of the accuracy of his computations, or of his methods of calculation, or of the hypotheses upon which his figures were based.

The salesman then switched his efforts to sell the Engineer on durability, strength and quality, but in these the customer showed only a passive interest.

The above citation of facts is quite a common experience of pipe covering salesmen with steam and power plant Engineers. Whether the latter are justified or not, their attitude, fostered necessarily by their training, follows these channels. The engineering profession demands to know the facts, persists in having accurate data substantiated by scientific research and investigation.

The answer is that the demands of these Engineers must be met, on their own ground and in their own terms. Pipe covering salesmen should study in every detail every published test ever made on the subject. They should carry photostat copies of the curves and figures deduced by these experts. A personal laboratory should be started, probably in the salesman's own home or office in which he might perform certain practical tests. At first these would be of a physical character, but later his field would broaden. Likewise similar tests could be made on competitive coverings, showing up weaknesses which could be contrasted to advantage with the covering handled. These personal tests would develop a mass of interesting sales data, creating talking points which would assure interviews.

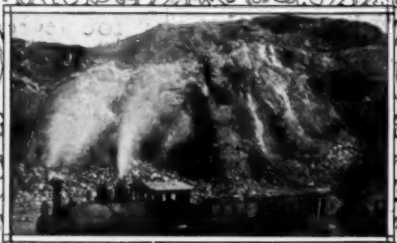
The contractor who would be successful might just as well resolve now to have his salesmen know all there is to be known about pipe coverings, to meet the Engineers on their own ground with authentic scientific deductions, and to back them up with the theoretical findings and research investigations of those recognized as expert authority on the subject.

Black Lake Asbestos and Chrome Company
LIMITED

Head Office
Jacobs Building, Montreal, Canada
Mines: Black Lake, Que.

Miners of
Crudes and Spinning Fibres
Specializing in Shingle Stocks

Controlling
Union Asbestos Mines
Southwark Mines
Imperial Asbestos Mines
Black Lake Chrome Mines
Coleraine Chrome Mines



Best 85% Magnesia

is made with

BLUE ASBESTOS

The Magnesia Association of America, on page 10 of their latest booklet, "Defend Your Steam," say—

1. The following table showed the *heat loss* from a pipe lagged with various materials each 1½" thick, with steam at 400 degrees F., and an outside temperature of 68 degrees F.:

2. MATERIAL

	B. T. U's per sq. ft. per hr.
MAGNESIA	118
BLUE ASBESTOS	121
MICA (best only)	123
WHITE ASBESTOS	126
PLASTICS, ETC. (best)	133
PLASTIC, ETC. (inferior)	143

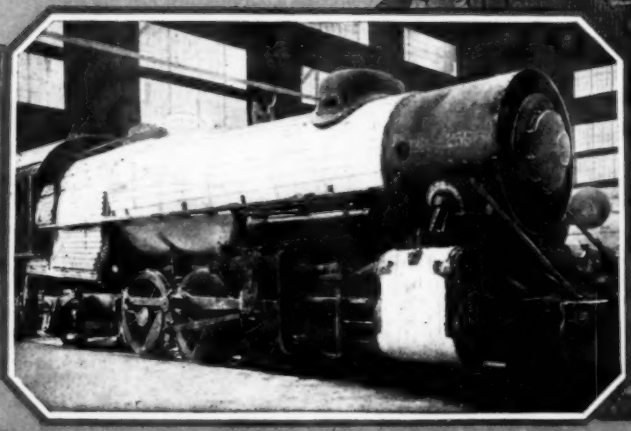
Therefore, Blue Asbestos is more efficient for insulation than White Asbestos. It also gives increased strength to the finished product and costs no more than White Asbestos.

We specialize in preparing Blue Asbestos.

ASBESTOS LIMITED

8 WEST 40TH STREET, NEW YORK CITY, N. Y.

MINES: Griqualand, South Africa
Associated with
Cape Asbestos Co., Ltd., London, England



Asbestos Mines Ltd.

Mine at
East Broughton, Que.

Mining all grades
of Asbestos Fibre

Head Office, Jacobs Bldg
Montreal, Canada.

MARKET CONDITIONS

Raw Materials

Reports from Canada, Arizona, Rhodesia and South Africa all reflect the dullness shown in general business. The few mines which are in operation are working in greatly reduced time and with small forces. Warehouses are nearly all well toward the full mark and little, if anything, is being shipped.

It is quite natural for the Mine Operators to maintain a bullish attitude and no one especially objects. It is necessary, however, that due regard be given the subject of falling labor, coal and other costs, and that such savings be promptly reflected in the selling price.

Nearly all lines of raw and finished merchandise have been well liquidated and it is unreasonable and uneconomical to expect or contrive to hold Asbestos prices at war time levels.

We cannot see need for drastic, unsound price cutting, in fact, we believe such a policy would spell ruin for many people.

On the other hand, there should be no holding of raw stuffs at prices inconsistent with costs, demand and the needs of humanity.

Finished Materials

Several manufacturers of pipe coverings, cements, etc., have recently reported a fair volume of business.

The strikes in building trades, which have caused a tremendous loss to all concerned, are being settled, one by one, and, as men go back to work, we may expect improvement in trade involving all materials entering into buildings.

As building activity increases, so will power plant requirements increase and the call for 85% Magnesia, Asbestos packings and other necessities of the steam plant will be more plainly heard than ever before.

Mr. Herbert Hoover frankly says that, in his opinion, the corner has been turned, and we are headed toward good business. Forbes, Gary, Sisson, Vanderlip, Schwab—all are optimistic.

As to automobiles, chemicals and gas mantles, which

use the bulk of the Asbestos Textile production, we feel that changes in these industries must follow improvement in building, textiles, and shoes.

Let the normal flow of necessities be resumed, from mill to consumer; let bank credit be established in proportion to normal needs; let taxes be levied so that reasonable amounts of surplus earnings may go back into industry; and give American industry adequate tariff protection. With these few little things fixed—we are all set for business on a 1919 and early 1920 scale.

Keep after them all, wherever your influence may be even slightly potent, and "good times" will greet us some fair morning when we least expect them.

Asbestos Stops Big Loss

A news note appearing in recent newspapers is of interest to ASBESTOS readers, because of the prominent part played by Asbestos in the incident.

For more than a week an oil well, No. 5, in the Amatlan Oil fields, near Mexico City, Mexico, blazed uncontrolled because no one could get near enough to it to shut off the supply of oil.

On July 25th, a workman protected by an Asbestos shield ventured into the terrific heat with flaming oil falling all around him. After fifteen minutes of frantic work, he succeeded in nearly closing the valve which controls the oil supply of that particular well. The intense heat had so damaged the piping system that it was impossible to close the valve entirely, but since the well is now partially under control it is believed that another effort, with the use of the asbestos shield will result in entirely cutting off the supply of oil and so entirely stop the loss.

Loss so far is estimated at several million of dollars.

Winning, never Boast; and, Losing,
Never do the least Excusing.

The Market Situation in Pipe Covering Bands

(As reported by the Ritter Can Company)

Since our report last month the tin plate market has twice declined in price. On July 21st, there was a decline of 50c per base box, and on July 28th, another one of 50c.

At this time it is hardly possible to say definitely whether the tin plate market will remain fixed for the balance of the year or whether a further decline may be looked for, since the situation is far from stabilized, and the buying continues on the same basis as during the last six months, viz: from hand to mouth.

Indications are that the price of tin plate has reached bottom for this year. The stocking of pipe covering bands is not advised at the present time.

ASBESTOS EXPERT—23 years experience selling and manufacturing Asbestos Products. Willing to invest money and become interested in Asbestos Textile Mill; spinning yarn, weaving cloth, etc. Unquestionable references as to character, ability and integrity. What have you to offer? Strictly confidential. Address 8B-4, "ASBESTOS."

FOR SALE—I can offer the controlling interest in a New York Corporation, who own 60 acres of land that shows good quality of Asbestos spinning fibre in an entirely new location; same quality as that of the best Canadian Fibre and is undoubtedly the same vein, tho not in Canada. It may develop into an entirely new field as big as the Canadian field. Address WILLIAM BLANK, Box 61, Westfield, N. J.

POSITION DESIRED—Man experienced in construction engineering, power house erection, organization, estimating, selling and application of insulating materials. Technical graduate. Sound health; not afraid of work. Has had charge of office and large territory for insulating concern. Address Br-1, "ASBESTOS."

WANTED—Salesman with experience in selling Asbestos Textiles. Only expert considered. Good opportunity for advancement for energetic and capable man. Address Bn-4, "ASBESTOS."

WANTED—Two thoroly experienced salesmen, to travel in United States, to sell direct from Canadian Mine, Asbestos Fibre and Cement. Good salary and commission. Address 8AM-5, "ASBESTOS."

White Chrysotile.

The Victoria District Industries, Ltd.

Fort Victoria,
Southern Rhodesia.

Are Mine Owners, operators, and dealers.

Now open to consider "forward contracts."

Blue Crocidolite
White Tremolite
Brown Amosite

African Base Metals Export Co., Ltd.

Kearsney Buildings,
Durban, Natal.

Are Mine Owners, operators, and dealers.
Ready to consider prompt and forward contracts for several grades.

CABLES:—Both companies use Broomhall's Imperial Combination, and Bentley's Codes, and will respond promptly to cabled enquiries.

Labor—and The Creative Instinct

Some years ago, in the William Demuth Pipe Company, Brooklyn, a foreman who was directing the polishing and buffing of meershaum pipes (which was a delicate operation performed by hand) devised a machine to replace the hand work. With it he demonstrated that one man operating the machine was equivalent to three hand workers. A superintendent in the same factory, who had been making pipes for 40 years, examined the device and pronounced it the best thing he had ever seen in pipe making.

The point is that the inventor was a laborer with creative instinct, and some originality, who gave some thought to his Company's future beyond providing employment and a livelihood thru the years.

A search thru the period which gave us our modern machinery will reveal the place labor has held in the business world from the standpoint of invention. The list emphasizes the laborer as the author of inventions.

No brilliancy of mind ever fostered invention as has the actual, daily contact, the chance for experiment and investigation, which the laborer or mechanic alone enjoys. For this reason we find that the creative instinct in labor is in large part responsible for the astonishing development in manufacturing machinery.

Any laborer to be efficient, must be original; he should be creative; he ought to be inventive. No matter how common or unskilled the task may be, the workman who does the same old thing in the same old way he did when first employed, is an expensive employee.

A satisfied workman is, in a sense, a hazardous one, not only because he brings nothing new to his work, but because an industry needs the sparring of laborers for supremacy, to keep her employees on edge.

The ordinary laborer, tho working with and paid for the skill of his hands, should, and will, find plenty of food for thought in his daily routine, if only he has the ability to adapt his ways to time saving methods, which his creative instinct makes possible.

These are days of efficiency.—Labor in all manufacturing plants is highly specialized, each workman having his

particular work to do. Did you ever think how much production would be increased if each workman, thru some sleight of hand or body, or thru the elimination of waste motion, could increase his individual output a unit per minute, or a couple of units per hour, or several a day.

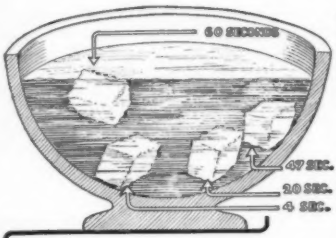
This *should* be the aim of real labor. Only the capacity to devise and discover different ways and methods, create new and more efficient habits of work, will ultimately profit the manufacturer.

The man who can do any one given thing better than anyone else, will never want for a job because he has demonstrated initiative and proved his ability to create. When labor reaches this stage its services will never be thought of as a commodity, but rather as a living human effort.

The days of the human machine are gone. Machines are not made of blood, bone and muscle. Any such found in your plant might be profitably discarded and replaced with those made of iron and steel. Skill and brains catch the eye of the captains of Industry, and these qualities in labor are not found in those who, like the parasite, would lean for support of self and family on the employer, but rather in those who by genuine instinct to create—until creation has led to efficiency and efficiency has been raised to the nth power—have made their labor worthy of its hire and made their service a necessity to be sought rather than a liability to be maintained.

In the labor of to-day the employer is looking for resourcefulness, for something better than the strength of the arm or the skill of the hand. He is searching for the man who can create, that is, he who improves conditions, conserves energy that is wasting, and increases or economizes production.

Now, if ever, the employer, especially the manufacturer, must practice the lesson taught by the honey bee, which, in its supreme effort to produce its favorite product, checks its results, locates the drones and drives them from the hive.



Make This Test on YOUR Pipe and Boiler Covering

The saving effected by a pipe and boiler covering depends on a number of qualities–strength lightness, ability to stand heat without injury, number and character of tiny air spaces, etc. If the voids holding dead air are too continuous—spongelike in character—heat will penetrate the covering quickly like water and escape. The above drawing pictures a test made frequently and one that you can make for yourself. Four cubic-inch pieces of well known pipe coverings were thrown into a bowl of water. The 85% Magnesia cube, as will be seen, floats considerably longer than the others—60 seconds. The air spaces of 85% Magnesia are more numerous and much less continuous than those of any other known insulating material. This accounts for its remarkable insulating quality.

85% Magnesia Pipe and Boiler Covering *could* be made both heavier and stronger, if that were desirable. But it is made just heavy and strong enough for all practical purposes and this permits full insulating quality.

With the present price of coal, you should put your pipe and boiler covering to the severest practical tests. Ask us for further data on heat insulation, sent free of obligation. This Association, as such, has nothing for sale.

MAGNESIA ASSOCIATION *of* AMERICA

721 Bulletin Bldg., Philadelphia, Penna.

EXECUTIVE COMMITTEE, Wm. A. Macan, *Chairman*

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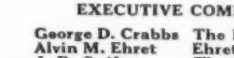
Alvin M. Ehret	**Ehret Magnesia Mfg. Co.**	**Valley Forge, Pa.**
J. R. Swift	**The Franklin Mfg. Co.**	**Franklin, Pa.**
R.V. Mattison, Jr.	**Keasbey & Mattison Co.**	**Ambler, Pa.**



NATIONAL MAGNESIA MANUFACTURING COMPANY

Manufacturers of

"85% Magnesia" Pipe

and

Boiler Coverings

Locomotive Lagging

544 Market Street

San Francisco. California

U. S. A.

Cable Address, "Magnesia, San Francisco"

QUESTION BOX

We will in this department, endeavor to answer any and all questions concerning Asbestos or Magnesia, provided they do not involve the giving of confidential information.—The Editor.

Question: What is the difference between "cross fibre" and "slip fibre?" R. M. C.

Answer: "Cross" or, more accurately speaking, "vein" fibre is the term applied to Asbestos fibres deposited in fissures at right angles to the enclosed walls.

In other words two planes of serpentine rock are separated by a fissure in which fissure the Asbestos fibres lay at right angles to the planes of rock, i. e., the ends of the fibres abutt the two rock surfaces.

"Slip" fibres are those which, by reason of slippage of rock have become laid horizontal to the fissure between two planes of rock. "Slip" fibre, being drawn out, owing to the overlapping of the single fine threads, often gives the impression that it is much longer than "cross" fibre. Examination under the microscope, however, reveals that the drawn out, highly compressive experience has so knitted the fibres that they *appear* longer, whereas they can be separated and are actually no longer than "cross" fibres.

Both "slip" and "cross" fibres find their way into the mills and, unless the "slip" fibres have too much pierolite intermingled with them, both "slip" and "cross" are run thru the mill and are utilized in mill fibre grades.

For further data on this distinction we refer you to "Chrysotile Asbestos" by Fritz Cirkel, now out of print, but a copy of which may be consulted in our office.

Question: Distinguish between the following varieties of Asbestos; Shabanie, Rhodesian, Orlo.

Answer: We have never heard of Orlo, and think perhaps you mean Odzi.

Shabanie is a subdivision (or district) of Rhodesia.

Odzi is a town in Rhodesia.

Rhodesia is a large country in East Central and South

Africa, containing a number of subdivisions or States. Asbestos has been found in several of these subdivisions and is often offered as Rhodesian or as, under the name of one or another of these states.

Imports and Exports of Asbestos

Imports of Asbestos, Unmanufactured.

	May 1921		May 1920	
From England			72 tons	$24,446
Br. So. Africa	14 tons	$ 2,154	283 tons	44,589
Portuguese Africa	57 tons	11,982	135 tons	71,970
	71 tons	14,136	490 tons	141,005

Imports of Raw Asbestos from Canada during May 1921 amounted to 4,521 tons, valued at $159,150.

Imports of Manufactured Asbestos Goods during the month of May for the two years, show the following:

	May 1921	May 1920
From England	$6,897	$44,621
Germany	2,083	331
France	655	
Italy		30
Switzerland		6,542
Scotland		1,803
	$9,635	$53,327

Exports of Manufactured Asbestos Goods during May 1921 amounted to $86,420; during May 1920 they amounted to $235,877. Our readers will be interested in some of the figures representing exports to individual companies, and we therefore set them below:

	May 1921	May 1920
To England	$2026	$40,242
Germany	6000	
France	2112	2,991
Roumania		36,258
Netherlands	644	2,738
Sweden	1565	1,842
Italy		2,192

Hobdell, Way & Co.

LIMITED

LONDON, ENGLAND

RHODESIAN CRUDE ASBESTOS

CAPE BLUE CRUDE ASBESTOS

Address Enquiries to

W. D. CRUMPTON & CO.

Special Representatives

Room 1010 #8-10 Bridge Street

New York City - New York

GET this valuable book—60 pages on important insulating materials for ALL purposes. Ten pages of data for engineers. Write for it.

News from Mining Centers

Arizona.

Active operations have stopped on all mines and prospects in Arizona, barely a dozen men being at work, half of which are employed at the Chrysotile Plant and the other half at the Regal Mine. Road improvements and trail building are being continued on a small scale at the latter.

Prospectors who have located claims during the period of high activity are now unsuccessfully trying to dispose of their holdings, and promoters of would-be mining companies have entirely dropped out of the running, as the market for Asbestos is altogether too uncertain for investors and one must have ample capital for development purposes in an Arizona Asbestos mine before it reaches the shipping point, it being extremely costly to make most of the claims accessible. Veritable stunts of transportation have to be performed (see photo page 4) before anything resembling a heavy equipment can be put in place. Trail and road building is indispensable and costly preparatory work and at present nobody shows any inclination to invest large sums of money in such work.

The Arizona Asbestos Association at Chrysotile and the Regal Asbestos Mines on the Salt Banks are the only two mines in Arizona which transport Asbestos by motor trucks; the other small operators are dependent upon burro transportation and all burros now have enforced vacations.

The stocks of Asbestos on hand in Arizona are small and the quality very much mixed. Most of this material has found its way to the new factory near Los Angeles, but shipments to that point have diminished recently. The material produced by the Arizona Asbestos Association goes exclusively to the plant of the Johns-Manville Company, Inc., while that coming from the Regal Mines is stored in New York ready for immediate delivery to American consumers, tho substantial shipments have been and are being made to Europe.

As far as we are able to learn, no production has been reported as yet from the claims located in the Indian Reservations where activities seem to be at a standstill.

China

Very little is being done in the Chinese Asbestos fields

Asbestos Corporation
of Canada, Limited

The Largest Producers of Raw Asbestos in the World

CRUDES
SPINNING FIBRES
SHINGLE STOCKS
PAPER STOCKS

Mines

Kings Mines, Thetford Mines, Quebec
Beaver Mines, " " "
B. C. Mines, Black Lake, "
Fraser Mines, E. Broughton, "

Head Office

260 St. James St., Montreal

General Office

THETFORD MINES
Quebec, Canada

at the present time owing to the civil war raging in the Southern section which is the section in which the asbestos deposits are found.

This section is now practically dominated by the Canton government, and since most of the lease owners of Asbestos deposits secured their leases from the Pekin government, they are rather "out of luck."

It is understood that several American capitalists have lately financed some of the Chinese owners in the hope of securing crude, and have also placed a resident engineer in Pekin to look after their interests.

Only small quantities have been shipped recently and as usual it is not properly graded.

Royalties on Asbestos from Indian Reservations

The United States Bureau of Mines Experiment Station, Tucson, Arizona, is giving serious thought to the matter of establishing royalties on Asbestos produced in the Indian Reservations.

The Indians are the owners in fee of lands contained in the Reservations, and in the case of lead, silver, gold, etc., it is a comparatively simple matter to fix a per ton royalty to be paid the Indians by the producers who operate on leaseholds.

In the case of Asbestos, however, where the matter of grade values in quality, in length and in marketability generally, enters into the equation, it is a most difficult task to impose an equitable royalty, so that the Indian owner and the Asbestos miner are both reasonably well protected.

This publication will gladly receive and pass along to the authorities any opinions and observations which may be tendered by its readers.

Dominion Distribution

of Asbestos Products and Mechanical Rubber Goods

Covers the

Industrial, Marine, Mill, Railroad, Mine, Automobile Trades

throughout the United States and every country in the civilized world.

••

Dominion Asbestos and Rubber Corporation

154 Nassau Street, New York

Albany	Indianapolis	Richmond
Baltimore	Los Angeles	San Francisco
Cincinnati	Norfolk	Seattle
Detroit	Philadelphia	St. Louis
	Pittsburgh	

The Hague, Holland

An Appeal for the Use of Insulation

The International Steam Engineer, which is the official organ of the International Union of Steam and Operating Engineers, published in its April issue, an appeal for the use of steam pipe insulation which will interest our readers. It reads:

STEAM PIPE INSULATION

No engineer would think of using bare wires for carrying heavy electric currents: he would insist on their insulation. Yet there are cases almost without end where plants, which are held up as models of efficiency, use steam pipes that are not insulated in the proper manner. And just as electric current would leak in the instance of uninsulated wires, so do heat and steam leak or become weaker when carried through uninsulated pipes.

There is no excuse for uninsulated steam pipes at this time when, on the one hand, coal is selling at exceptionally high prices, and when, on the other hand, fuel engineers have made such a thoro study of heat insulation. Two symptoms, we are told by heat insulation engineers, always signal heat loss from a steam pipe. One is lowered pressure in the pipe, the other is high temperature of the air surrounding the bare or poorly insulated pipe. Obviously, this falling pressure or surrounding heat means that fuel in the form of heat is being wasted. Pipe insulation is necessary.

An insulation to be of maximum value must have more than the property of preventing heat loss. It must also have physical durability, for a short-life material means early replacement, so that if insulation values are equal, the most durable insulation is the most economical. A number of heat-insulating materials are now on the market, and companies producing these materials have a staff of engineers who specialize in problems of this kind. Both indoor and outdoor installations, overhead and underground, and every other condition can be met by consulting the heat-insulating engineers.

NEWS OF GENERAL INTEREST

An interesting analysis of the Construction Industries has been made and published by the United States Chamber of Commerce.

The total national wealth of the United States is given as $288,464,000,000, of which 26.8% or $77,321,000,000 is represented by the Construction Industry.

The report shows that in 1914 one-quarter of the 276,000 manufacturing concerns employing 10,658,000 workers, with an annual payroll of $5,368,295,000 and an annual output worth $25,000,000,000 was devoted to construction products. 25% of the freight transported by the railroads is construction materials. Other interesting figures are given.

Samuel Gompers has been re-elected President of the American Federation of Labor by a majority of two to one over his opponent, Lewis, of the United Mine Workers Union. Big business and capital are quite satisfied with the result because the present incumbent's methods and policies are known and are fairly conservative in deed, tho radical and revolutionary in language.

The Building Trades Employers Association of New York City has asked that the Building Trades Council meet the employers to discuss the proposition of reducing the general scale of wages now being paid building trades mechanics. The proposed meeting is the culmination of a proposal made by the various building trade associations to their respective unions that the unions consent to a $1 a day decrease. The unions asserted that the question of wages was in the hands of the central council, to which body the matter has been referred by the constituent unions.

The Lyons Fair, to promote international trade, will be held at Lyons, France, October 1st to 15th, 1921. Efforts are being made by promoters of the Exhibition to secure representatives from every country. Full particulars may be had by addressing Emile Garden, Official U. S. Delegate, 150 Nassau St., New York City.

Collier's Weekly is circulating to large business houses a reprint of Stephen Leacock's elucidation of Canada's Sales Tax this having appeared in the June 18th issue of Collier's. The system fixes a tax of 1% on sales from manufacturer to jobber, 1% additional on sales from jobber to retailer, 2% of duty paid value on goods imported for importer's consumption, and 1% from importer to retailer. The gross percentage is 2% on all sales. Real necessities are exempt from the tax features.

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FOR THE MANUFACTURE OF

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Pipe Coverings
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Roofing Cements

THE QUEBEC ASBESTOS CORPORATION

Office and Mines

East Broughton, Province of Quebec
Canada

NEWS OF THE INDUSTRY

Ever Ready Brake Lining and Clutch Facing Specification Data, issued by the Kelso Manufacturing Company of Trenton, N. J., contains a complete tabulation of sizes, numbers and other requirements of every known make of car. Other data as to manufacture are given and every handier of automobile equipment should have this valuable little book at hand.

The Editor, being a golfer of sorts, finds an "asbestos hat" very comfortable during these hot days. The Carey Company of Cleveland has attached to a hat made of crimped Japanese paper an asbestos lining, and to The Carey Company is due credit for giving us many cool, pleasant rounds.

A Branch Office and warehouse has been opened in Houston, Texas, by R. V. Aycock Company, Kansas City. Texas and the Mexican trade will be sought by the new office. The Aycock Company handles the Keasbey & Mattison Company's lines of Asbestos-Magnesia goods.

Each two months we receive, read and enjoy the house organ issued by The Raybestos Company—The Silver Edge. In the last issue a very humorous account is given of a man who grievously complained because his brake linings needed renewal after a paltry *125,000 miles* of use, most of his driving being in a mountainous section. Hard Luck!

George D. Crabbs, President of the Philip Carey Company, has returned after a six weeks European trip.

G. C. Williamson, formerly superintendent of the National Manufacturing Company's plant at Redwood City, Calif., has formed the W-K Minerals Company, with offices at 1215 First National Bank Bldg., San Francisco.

The W-K Minerals Company will take over and operate the Magnesia plant of the Magnesia Products Company, which is located at Patterson, Calif.

It is claimed that the W-K Minerals Company owns and operates the largest deposits of high grade Magnesite in the United States, and are ready to market both Crude Ore and the Calcined Magnesite.

ASBESTOS

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LIMITED

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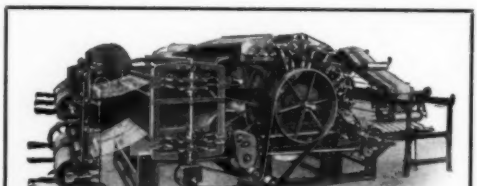

We have built practically all the yarn-spinning equipment for Asbestos in this country.

Circulars and further particulars on request.

SMITH & FURBUSH MACHINE CO.

Philadelphia **Penna.**

ASBESTOS

The India Rubber Journal in issue of June 25th, prints the following news item: The Home Secretary has made an Order authorizing the employment of women of eighteen years of age and over, in carding, spinning and doubling of Asbestos at the works of Bell's United Asbestos Co., Ltd., Harefield, Middlesex, on two day-shifts, subject to the condition that no worker be employed in the afternoon shift in consecutive weeks.

The Johns-Manville Company, Inc., exhibited their asbestos materials at the electric heat show held by the New York Edison Co. during the week of June 6th.

To B. Marcuse, President of the Asbestos & Mineral Corporation, it is our pleasure to extend congratulations and hearty good wishes, for his birthday, which will occur on September 11th.

N. E. Newman, President of Asbestos Limited, has returned after a three months absence spent in Europe.

Under the style of British Fibro-Asbestos Products, Ltd., a private company has been registered, with a nominal capital of £30,000 in £1 shares, to carry on the business of manufacturers of and dealers in Asbestos, compressed jointing, lagging, yarn, rope, cloth, boiler composition, paper and all materials in which asbestos or rubber are employed, and as contractors, decorators, furnishers, etc. The permanent directors are F. Beadle, 1 Queen's Gate, Kensington, S. W., G. H. Buxton, "The Elms," Erith, and D. K. Smith, 52 Westcombe Park Road, Blackheath. The registered office is given as Manor Road, Erith.—India Rubber Journal.

From Iron Trade Review we note that the contract for electrical equipment and motors for asbestos and reducing mill, costing $40,000, for the Canada Asbestos & Chrome Co., Ltd., Coleraine, P. Q., has been placed with the Canadian General Electric Co., 158 St. Antoine St., Montreal.

In current newspapers we note the following incorporations: National Asbestos Shingle Corporation by C. T. Cohee, C. B. Outen, and S. L. Mackey; Albany Asbestos Slate Co.; Pioneer Asbestos Corporation. All these are incorporated under Delaware laws and the only address we have therefore, is Wilmington, Del. We would like very much to get in touch with these newly formed firms, and if any of our readers know the correct addresses we would be glad to have them.

The June 18th issue of Scientific American contains an interesting article on the Fireproof Airplane and Aviator's Suit

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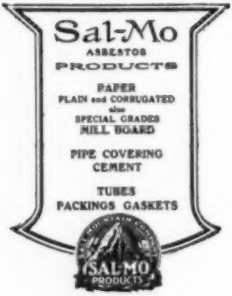
MEANS
EASIER SELLING

Insist on Sal-Mo Products
The Quality is Uniform.



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and courteous attention

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NEW YORK CITY
141 W. 20th. St.

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268 State St.

invented by Parker R. Bradley. Reference was made to this equipment in the August 1920 issue of ASBESTOS.

We have often wondered why the Asbestos Industry did not interest itself more seriously in the matter of good roads since the further development of the Automobile Industry is so vitally essential to the well being of the Asbestos business.

A brake test scale, consisting of a movable circular piece of cardboard, attached to a fixed piece of the same material was largely distributed at the Automobile Accessory Jobbers Convention by the General Asbestos & Rubber Company of Charleston. The convention was held at Mackinac Island.

The scale should be in the hands of every car owner, as it very quickly indicates to him whether or no his brakes are in a safe condition.

Mr. Bennett of the Mapleleaf Asbestos Corporation honored this office with a call during the past month.

The University of Arizona has issued a bulletin, No. 113, entitled Asbestos, by M. A. Allen and G. M. Butler. This Bulletin is full of valuable information concerning the Asbestos deposits in Arizona, and copies may be obtained by addressing the University of Arizona, Arizona Bureau of Mines, Tucson, Arizona.

The Idaho Montana Asbestos Company, West Yellowstone, Montana, is prepared to install Asbestos milling equipment in connection with the deposits of Asbestos owned by the Company. They expect to have a large tonnage of No. 2 Crude, some No. 1 Crude, and an excellent grade of mill fibre.

On July 1st, Switzerland put into effect new import duties on raw rubber, rubbered fabrics, articles of india-rubber and gutta-percha, asbestos and cables. Generally speaking, the duties on Asbestos are higher than formerly, in some cases the rate being more than doubled.

F. C. Weber and Charles C. Maull of the Asbestos Shingle, Slate and Sheathing Company, Ambler, Pa., will start shortly for England, in the interests of that Company.

Collins-Lotz Company of Hartford, Conn., have evidently escaped, or overcome, the general business depression. Sometime ago their increasing business made it necessary to move to larger office quarters at 60 Prospect Street, Hartford, and only recently they have been compelled to extend their storage and warehousing space. Their new storage building is located on a railroad siding and is equipped in every way to store and handle their stock in order to give the best possible service.

ASBESTOS

From the India Rubber Journal we note the death of Herr Carl Reinhold. Herr Reinhold has since 1905 been connected with the firm Berliner Asbestwerke Wilhelm Reinhold (Berlin-Reinickendorf). From 1912 to 1918 he was chairman of the Germany Asbestos Syndicate, from which, in 1919, emerged the "Wirtschaftsverein der Deutschen Asbestindustrie." Herr Reinhold was in his 68th year at the time of his death, and remained to the last a keen promoter of close co-operation in the asbestos industry in Germany, in spite of the unsatisfactory state of his health.

About 150 employees of the Cape Asbestos Works, Barking, England, are on strike as the result of the management having reduced wage rates to the level of those now being paid by other employers of labor in Barking. The Cape Asbestos Co., Ltd., is at present engaged on Admiralty work on contracts having a "fair wage" clause, and a meeting, to which both employers and employees have agreed to send representatives, is to be held at the Admiralty to discuss matters; the date of the conference has not yet been fixed. The company, incidentally, is not a member of the Joint Industrial Council for the Asbestos Industry.—*India Rubber Journal.*

The Asbestos & Mineral Corporation announces to its customers that the Royalty Tax of 5%, charged by the Province of Quebec Government on shipments of Crude and Fiberized Asbestos, will, in future, be absorbed by the Asbestos & Mineral Corporation.

Heretofore it has been customary to charge a price per ton and after the invoice had been calculated, an addition of 5% was made to cover the Canadian Royalty Tax. The absorption of this tax by the Mine Operators and the distributors of Asbestos is a step toward the reduction of price to the ultimate consumer.

One of the largest individual covering contracts ever awarded in the East is that of the Hartford Electric Light Company's power station at South Meadows, Hartford, Conn.

The award was made by Stone & Webster, Inc., of Boston, to the Collins-Lotz Company of Hartford.

Charles A. Caruso, who for twenty-one years was Superintendent of the United States Asbestos Company's plant at Manheim, Penna., has recently become associated with the Pennsylvania Asbestos Company at North Wales, Penna., as Vice President and General Manager.

Mrs. F. C. Weber, wife of Dr. Weber of the Asbestos Shingle Slate & Sheathing Company, Ambler, Pa., met with a painful accident on June 14th. When walking on the pavement along Butler avenue, Ambler, a team of runaway horses struck her, knocking her down, breaking her leg, two ribs and causing other

Consolidated Asbestos Limited

MINES AT

THETFORD MINES, QUEBEC, CANADA
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Miners of all Grades *OF* ASBESTOS CRUDE and FIBRE

EXECUTIVE OFFICES

Dominion Express Building
145 St. James St.
Montreal, Canada

bruises. Her condition was serious but she is now able to be up and around.

A consumer of very high grade Asbestos Cloth desires to dispose of some of their surplus stock. The name of the concern, price, and other particulars can be had by addressing ASBESTOS.

Samples of first class Asbestos crude have been brought from the Sinclair property in Bannockburn Township, Matachewan District, Canada.

Mr. Wm. Judge, in charge of operations, plans to produce a sample carload of crude. Transportation conditions forbid the production of any but long crudes, altho a railway to the property is being projected.

A hundred men of the First Baptist Church, Norristown, Penna., recently held a watermelon social at the Port Indian home of A. K. Burgstresser. Mr. Burgstresser is Superintendent of the Norristown Magnesia & Asbestos Company.

The Canadian Mining Journal in recent issue, makes note of a pavement recently laid in Toronto by the Warren Bituminous Paving Company, which pavement contains fine Asbestos fibre as one of the ingredients. A similar pavement was laid in New Bedford, Mass., some time ago on a heavy traffic street as a test, and is said to have given satisfaction. The Asbestos fibre is said to add qualities of toughness and indestructibility which more than compensate for the additional cost of the asbestos fibre.

The Pennington Asbestos Mine, Thetford, which has been shut down for three weeks making repairs, is again working full time, day and night.

Theodore Sheldon of the Palmer Equipment Corporation, Chicago, was a recent visitor at our office.

On August 15th, the Asbestos & Mineral Corporation plan to circulate a chart showing price fluctuations in Asbestos Crudes and Fibres for the years 1912 to 1920 inclusive. We have had the pleasure of looking over this chart and find it very interesting. Copies of it may be had by addressing the Asbestos & Mineral Corporation, Gotham National Bank Bldg., New York City.

ELWOOD J. WILSON

76 CORTLANDT STREET

New York City

Asbestos Crude and Fibre

Thetford Crudes, Rhodesian Crudes

Prepared and Opened Crudes

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Spinning Fibres, Shingle, Paper and Cement Stock.

In Large or Small Quantities
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CHRYSOTILE ASBESTOS ONLY

Afterthoughts

July is the month of roses.

We know that the popular conception is that June is the rose month, but so far as this little magazine is concerned, we received more roses in July than in any other month in the year. Possibly that is due to the fact that a great many subscriptions expire in July and our readers in renewing go to the trouble of telling us what they think of the magazine, and so far they evidently think pretty well of it,—not one egg among them.

Just for instance, somebody wrote us the other day and said: "I have found "ASBESTOS" not only presents interesting matter to its readers, but in my personal opinion is a volume that should properly have a place in every office and in the hands of every individual who is either directly or indirectly interested in asbestos fibres, as well as manufactured goods. I consider it an invaluable adjunct to any office."

And another reader tells us that the graph given on page 13 of the June issue helped him in making a sale of Asbestos Cloth as his customer contended he was being robbed on the price of Cloth until he was shown the graph, when he admitted that the price was reasonable.

That is one of the purposes of "ASBESTOS," to help in the sale of the goods. That is the reason we remind the Asbestos firms from time to time that their salesmen should receive "ASBESTOS" each month. It helps them—it helps their firms, and naturally, it helps us to have their subscriptions.

Next month we expect to publish a rather comprehensive article on Asbestos Cloth, Its Manufacture and General Uses. We have been trying to secure an article on Asbestos Cloth for some time and know it will provide our readers with a great deal of interesting and instructive data.

Later, a companion article concerning Asbestos Selvage Edge Tape will appear.

We try to vary these leading articles so that gradually all divisions of the Industry will be covered. If the subject in which you are particularly interested has not been covered, be patient, we'll probably come to it bye and bye, altho it might be a good plan to drop us a line about it, in case it would in some manner be overlooked or not thought of.

We want to again ask our readers to keep us supplied with any new catalogs or other printed matter or advertisements sent out, and also keep us advised of happenings in your particular corner of the Asbestos or Magnesia Industry. Everybody is interested in the personal news items. Send them along.

QUALITY USACO PACKINGS

United States Asbestos Company

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Manufacturers of asbestos yarns and fabrics, also packings and friction facings.

Sold exclusively to manufacturers of rubber goods, packings, and brake linings, and to distributors of asbestos materials on a quantity basis.

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White Seal Asbestos Roofing

TRADE MARK

IMPERIAL BRAND

Black Seal Asbestos Roofing

These are all mineral products made to withstand the elements and give life time service.

Approved by the Board of Underwriters for use in fire zones.

Highest quality Roofing manufactured.

First cost your only cost.

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1. Pure Asbestos Impregnated Felt
2. Layer of Waterproof Asphalt Cement
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4. Layer of Waterproof Asphalt Cement
5. Pure Asbestos Impregnated Felt

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85% Magnesia Plastic
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To Cut or Not to Cut--
That is the Question

To cut or not to cut. That is the question.
Whether it is not better in the end
To let the chap who knows not the worth
Have the business at cutthroat prices or
To take up arms against his competition,
And by opposing, cut for cut, end it.
To cut—and by cutting put the other cut
Out of business—'tis a consummation
Devoutly to be wished. To cut—to slash—
Perchance myself to get it in the neck—
Aye, there's the rub; for when one starts to meet
The other fellow's prices, 'tis like as not
He's up against it good and hard.
To cut and slash is not to end confusion
And the many evils the trade is pestered with.
Nay, nay, Pauline; 'tis but the forerunner
Of debt and mortgage such a course portends.
'Tis well to get the price the goods are worth
And not be bluffed into selling them for what
So-and-So will sell him goods for.
Price cutting doth appear unseemly
And fit only for the man who knows not
What his goods are worth and who, ere long,
By stress of making vain comparison
'Twixt bank account and liabilities
Will make his exit from the business.

—Better Business.

Robinson Press.
Hatboro, Pa.